



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/761,451	01/20/2004	Dong Yu	306536.01	3046
69316	7590	04/30/2010		
MICROSOFT CORPORATION ONE MICROSOFT WAY REDMOND, WA 98052			EXAMINER SHAH, PARAS D	
			ART UNIT 2626	PAPER NUMBER
			NOTIFICATION DATE 04/30/2010	DELIVERY MODE ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

DBOUTON@MICROSOFT.COM
vffiling@microsoft.com
stevensp@microsoft.com

Office Action Summary	Application No. 10/761,451	Applicant(s) YU ET AL.	
	Examiner PARAS SHAH	Art Unit 2626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02/25/2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 7, 18, 19, 32, 37 and 38 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 7, 18, 19, 32, 37 and 38 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This communication is in response to the Amendments and Arguments filed on 02/25/2010. Claims 7, 18, 19, 32, 37, and 38 remain pending and have been examined. The Applicants' amendment and remarks have been carefully considered, but they do not place the claims in condition for allowance.
2. All previous objections and rejections directed to the Applicant's disclosure and claims not discussed in this Office Action have been withdrawn by the Examiner.

Continued Examination Under 37 CFR 1.114

3. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 02/25/2010 has been entered.

Response to Amendments and Arguments

4. Applicant's amendments (pages 5-6) filed on 02/25/2010 with regard to the 112, 1st paragraph rejections of claims 7 and 37 have been fully considered and have been withdrawn. However, upon further consideration a new 112, 2nd paragraph rejection for omitting essential steps have been made on claims 7 and 12.

Information Disclosure Statement

5. The information disclosure statement (IDS) submitted on 03/23/2010, 02/25/2010 and 12/17/2010 are in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statements are being considered by the examiner. The latter IDS has been considered in view of the translated documents submitted on 02/25/2010.

Claim Objections

6. Claim 37 is objected to because of the following informalities: In page 4, lines 9, "the distance" should be "a distance" since distance has not been previously defined. Appropriate correction is required.

Claim Rejections - 35 USC § 112

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 7 and 37 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential steps, such omission amounting to a gap between the steps. See MPEP § 2172.01. The omitted steps are: in the "determining if the corrected word exists in the user's lexicon" method step, it is unclear as to when this parameter is being changed which is associated with the pronunciation. Particularly, the Applicant's Published Specification in paragraph [0042] describes two scenarios if a word exists in the user's lexicon. One of these being if the pronunciation is new and the other being if the pronunciation is not new. The changing of the parameter only occurs if

the pronunciation is not new, where the probability is increased (see [0044]). The same does not occur if the pronunciation is new. The latter part of the claim which describes the generation of the confidence score only occurs if the pronunciation is new. Hence, the claims omit such relationships that results in a gap between the steps, which is further evidenced by the formula, where the len1 is a new pronunciation. The Applicant is requested to add such steps in the claims which distinguished when a new pronunciation is new and when it is not new and the step of adding the new pronunciation based upon the confidence score is missing as without such limitation it is unclear as to what the confidence score is used for and presents a limitation without any connection to the learning steps.

Further in claim 7, specifically, the step of "building a lattice..." and "generating a confidence score based at least in part upon the distance...." It is unclear as to how the building of the lattice effects the confidence score generation. The limitation does not seem to be connected with the rest of the claim. Furthermore, the term "the distance" lacks antecedent basis as the "distance" has not been defined previously. It seems as though the Applicant is intending to connect the lattice building with the distance. The Applicant is suggested to provide antecedent basis and to provide a connection between these two limitations as a gap between the steps occurs if no connection exists.

9. Claims 18, 19, 32, and 38 are rejected for being dependent upon a rejected base claim.

Claim Rejections - 35 USC § 101

10. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

11. Claims 7 and 37 are rejected under 35 U.S.C. 101 as not falling within one of the four statutory categories of invention. Supreme Court precedent¹ and recent Federal Circuit decisions² indicate that a statutory “process” under 35 U.S.C. 101 must (1) be tied to another statutory category (such as a particular apparatus), or (2) transform underlying subject matter (such as an article or material) to a different state or thing.

Further, the particular machine or particular transformation must meet two corollaries for the subject matter to be eligible under 35 USC 101. The use of the particular machine or particular transformation must impose a meaningful limit on the claim’s scope. Secondly, the use of the particular machine or particular transformation of the particular article must involve more than an insignificant extra-solution activity.

The present claims recited a particular machine or apparatus, specifically an automatic speech recognition system. However, the automatic speech recognition system is merely an intended use for learning of pronunciations. The limitation does not impose boundaries on the claim's scope. The automatic speech recognition system is not required for the "detecting," "inferring," "selectively learning," building," or "generating" steps as recited the claims 7 and 37. The second step in the M or T test is

¹ *Diamond v. Diehr*, 450 U.S. 175, 184 (1981); *Parker v. Flook*, 437 U.S. 584, 588 n.9 (1978); *Gottschalk v. Benson*, 409 U.S. 63, 70 (1972); *Cochrane v. Deener*, 94 U.S. 780, 787-88 (1876).

² *In re Bilski*, 88 USPQ2d 1385 (Fed. Cir. 2008).

not satisfied as no transformation to a different state or thing exists as a confidence score is calculated for the pronunciation and learning from the correction..

While the instant claim(s) recite a series of steps or acts to be performed, the claim(s) neither transform underlying subject matter nor positively tie to another statutory category that accomplishes the claimed method steps, and therefore do not qualify as a statutory process.

12. Claims 18, 19, 32, and 38 are rejected for being dependent upon a rejected base claim.

Allowable Subject Matter

13. Claims 7 and 37 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, and 35 U.S.C. 101 set forth in this Office action.

14. The following is a statement of reasons for the indication of allowable subject matter: None of the cited reference either alone or in combination thereof teach or suggest the "detecting", "inferring", "learning", "building", and "generating" along with the confidence score being calculated using the function $1/[d/f/\log(\text{len1} + \text{len2})]$, where d is the distance between the recognized pronunciation and a best match in a lexicon, f is a frequency that the same pronunciation is pronounced, and len1 and len2 are the lengths of phonemes in a new pronunciation and the closest pronunciation, respectively." as recited in claims 7 and 37.

Conclusion

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

.Barnard(US 6,434,521) is cited to disclose updating a pronunciation dictionary in a speech recognition system. Gupta et al. (US 7,219,059) is cited to disclose automatic pronunciation scoring for language learning.

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to PARAS SHAH whose telephone number is (571)270-1650. The examiner can normally be reached on MON.-THURS. 7:30a.m.-4:00p.m. EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Hudspeth can be reached on (571)272-7843. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

Application/Control Number: 10/761,451

Page 8

Art Unit: 2626

USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/David R Hudspeth/
Supervisory Patent Examiner, Art Unit 2626

/Paras Shah/
Examiner, Art Unit 2626

04/12/2010